

CLAIMS

What is claimed is:

1. A method for recovering native protein from a sample comprising protein aggregates, said method comprising the steps of:
 - 5 a. obtaining a sample comprising protein aggregates;
 - b. subjecting the sample of step (a) to elevated hydrostatic pressure, whereby a portion of protein dissociates from said protein aggregates; and
 - c. returning the sample of step (b) to ambient pressure, whereby a portion of the dissociated protein refolds to native protein.
- 10 2. The method of claim 1, wherein said protein aggregates are inclusion bodies.
3. The method of claim 1, wherein said elevated hydrostatic pressure is insufficient to fully denature said protein.
4. The method of claim 1, wherein said sample further comprises a chaotropic agent in an amount which is insufficient to denature said native protein at ambient pressure.
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5. The method of claim 4, wherein said elevated hydrostatic pressure is insufficient to fully denature said protein.
6. The method of claim 5, wherein said protein aggregates are inclusion bodies.
7. A method for recovering native protein from a sample comprising protein aggregates, said method comprising the steps of:
 - 20 a. obtaining a sample comprising protein aggregates, wherein said protein aggregates are comprised of protein folding intermediates of a native protein;

- b. subjecting the sample of step (a) to elevated hydrostatic pressure, whereby a portion of said protein folding intermediates dissociate from said protein aggregates; and
- c. returning the sample of step (b) to ambient pressure, whereby a portion of the dissociated protein folding intermediates refold to native protein.

5 8. The method of claim 7, wherein said elevated hydrostatic pressure is insufficient to fully denature said protein folding intermediates.

9. The method of claim 7, wherein said protein aggregates are inclusion bodies.

10 10. The method of claim 7, wherein said sample further comprises a chaotropic agent in an amount which is insufficient to denature said native protein at ambient 10 pressure.

11. The method of claim 10, wherein said elevated hydrostatic pressure is insufficient to fully denature said protein folding intermediates.

12. The method of claim 11, wherein said protein aggregates are inclusion bodies.

15 13. A method for recovering native protein from a sample comprising protein aggregates, said method comprising the steps of:

- a. obtaining a sample comprising protein aggregates, wherein said protein aggregates are comprised of aggregation prone protein folding intermediates of a native protein;
- b. subjecting said sample to a level of hydrostatic pressure sufficient to dissociate at least a portion of said aggregation prone protein folding intermediates contained in said protein aggregates; and

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c. returning the sample of step (b) to ambient pressure, whereby a portion of the dissociated aggregation prone protein folding intermediates refold to native protein.

14. The method of claim 13, wherein said elevated hydrostatic pressure is below the
5 minimum level of hydrostatic pressure required to fully denature said aggregation
prone protein folding intermediates.

15. The method of claim 13, wherein said protein aggregates are inclusion bodies.

16. The method of claim 13, wherein said sample further comprises a chaotropic
10 agent in an amount which is insufficient to denature said native protein at ambient
pressure.

17. The method of claim 16, wherein said elevated hydrostatic pressure is below the
minimum level of hydrostatic pressure required to fully denature said aggregation
prone protein folding intermediates.

18. The method of claim 17, wherein said protein aggregates are inclusion bodies.

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